Dinamika Pendidikan

Logit Modelling of Financial Behavior Among Young Adults: Evidence and Implications

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Abstract

This study aims to comprehensively uncover antecedents of the financial behavior of young adults in Indonesia. The financial behavior used in this study involved high-cost borrowing, emergency savings, and planning for retirement. Young adult has an opportunity to use financial products. Data have been collected from 86 young adults. Binary logistic regression has been applied to analyze the data through SPSS 23. The financial behavior of young adults depends upon objective and subjective financial literacy, self-control, and demographic variables such as marital status and a number of children. This study pays attention to young adults, bank, and non-bank financial institutions, and policymakers related to strategies for increased financial inclusion. The present paper attempts to comprehensively uncover the variables that help in cumulatively predicting the financial behavior of young adult.

How to Cite

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INTRODUCTION

Nowadays digital era, people are required to be able to make good financial decisions. Increasingly complex human needs are also a challenge for a person to conduct precise personal financial analysis. Good financial decisions are essential to keep one's finances in a healthy position (Magli et al., 2020). The increasing human needs are also accompanied by the increasing number of financial products offered by banks and non-bank financial services. Moreover, with the improvement of technology, especially financial technology, as a form of innovation that provides convenience and comfort for the public in the financial field, causes a change in financial behavior patterns. One can make transactions only with smartphones and the internet. The presence of fintech has a positive impact on improving the economy due to the continued growth in the volume and value of shop-ping transactions. Investment opportunities are also wide open in various circles of society, allowing individuals to invest in various assets and lending opportunities, both traditional and non-traditional. However, behind the positive side, the culture of online shopping and cashless poses a consumerism problem that allows changes in the pattern of one's financial behavior.

Dramatic changes in the financial system occur with structural changes in social welfare poli-cy (Scheresberg, 2013). Despite the increase in financial products, many people still have difficulty and find it complex to understand them- especially someone who is blind to understanding finances. Financial literacy programs are becoming a topic that is being discussed among academics and practitioners. Financial literacy relates to financial behavior and relates to individual loans, savings, and investment decisions (Magli et al., 2021). A person who makes financial decisions well and effectively interacts with financial service providers is more likely to hedge against financial and economic risks

and improve the well-being of their household (Murendo & Mutsonziwa, 2017). Financial literacy is the ability to use one's knowledge and expertise to effectively manage financial resources to achieve sound finances (Sari et al., 2017).

This study focuses on a segment of the young adult population classified as productive age. It is assumed that they have a higher chance of lending activities and have broader access to financial products in today's digital age (Chuah et al., 2020). Some studies that discuss financial literacy on financial behavior use only objective measurements of financial literacy (Grohmann, 2018; Lusardi et al., 2010; Lusardi & Mitchell, 2011). Furthermore, Lind et al., (2020) add the measurement of financial literacy by including subjective financial literacy variables. However, Lind et al., (2020) only involve one factor, namely financial literacy. The study only involved a person's cognitive fac-tors but did not involve personality factors that originated inside. Nevertheless, personality can also affect a person's financial behavior. Research related to financial behavior needs to be done by differentiating personality variables that allow a more substantial influence on one's financial behavior, namely self-control (Younas & Farooq, 2019).

Younas & Farooq (2019) have conducted re-search related to sound finance by involving financial literacy factors, self-control, and financial behavior. However, the study only emphasized the subjective factors of financial literacy. In addition, self-control variables are measured using measurements initiated by Tangney et al., (2004), where such measurements tend to be expected in cases of a general nature. Therefore, this study expands the research of Lind et al., (2020) and Younas & Farooq (2019) by contributing to the literature in two ways. First, financial technology has a massive impact on the financial sector. Such innovations have an impact on a person's pattern of financial behavior. This study focuses on respondents of segments of the population

of productive age and has broad access to a wide range of financial products. Second, this study expands Lind et al., (2020) by adding personality variables, i.e. self-control, that strongly influence financial behavior.

Due to the increasing financial products offered by banks and non-bank institutions and the existence of financial technology that makes it easier for a person to transact financially, under-standing the financial behavior of young adult groups is essential. Hence, the present paper endeavors to comprehensively uncover the variables that help in cumulatively predicting the financial behavior of Indonesian young adults.

Financial knowledge plays an important role for young adults (Henager & Cude, 2016). Financial literacy is an individual's ability to make decisions related to money's effective and efficient use (Rai et al., 2019). Research shows that financial literacy positively affects financial behavior (planning pension programs, stock investments, con-ducting portfolios). Bucher-Koenen & Lusardi (2011) showed that financial literacy had an important influence on individual pension planning programs. Individuals with low levels of financial literacy are less likely to consider a pension pro-gram than individuals with high literacy levels. Financial literacy is an important driver in planning pension programs (M. C. J. Van Rooij et al., 2011a). In addition to pension plan planning, financial literacy also influences financial decision-making in investments. Individuals with a high literacy level tend to invest their funds in shares (Mouna & Anis, 2017; M. Van Rooij et al., 2011b). In addition to pension and investment program planning, financial literacy also influences the behavior of loan decisions (Chaulagain, 2017).

Financial literacy can be assessed objectively and subjectively (Lind et al., 2020). Objective financial literacy can be assessed using knowledge-based questions. Meanwhile, subjective financial literacy can be assessed by asking a person a question to assess their level of financial knowledge. Previous research has suggested the important influence of objecti-

ve and subjective financial literacy on financial behavior. That influence has been shown in connection to specific financial behaviors, such as highcost borrowing methods (Lusardi & Scheresberg, 2013; Pak, 2018), having an emergency fund (Babiarz & Robb, 2014; Lee, 2019), and retirement planning (Almenberg & Säve-Söderbergh, 2011; Kalmi & Ruuskanen, 2019; Lusardi & Mitchell, 2017).

In addition to one's cognitive factors, one's nature also plays an essential role in financial decision-making. One of them is self-control. Self-control is defined as a person's ability to stop bad habits, resist temptation, and overcome impulses (Strömbäck et al., 2017). Furthermore, Strömbäck et al. (2017) state that one way to define self-control is based on one's future self-control ability to control oneself today. Self-control is also explained in the saving life cycle theory called the behavioral life cycle developed hypothesis by (Shefrin & Thaler, 1988). Self-control is necessary because direct consumption has always been an alternative to retirement savings (Shefrin & Thaler, 1988). One needs to cultivate good habits in to deal with the problem of self-control. A person who has high self-control tends to resist the temptation not to consume something unimportant. Thus, someone with high self-control is more aware of the im-portance of planning loans, savings, and pension programs.

The previous review illustrates that none of the studies has comprehensively examined the set of variables that cumulatively affect the financial behavior of young adults. As young adults get wide opportunities to use financial products, the present study attempts to comprehensively un-cover the financial behavior of young adults in an Indonesian setting.

METHODS

This research is quantitative. The data was taken from a survey involving a segment of the young adult population. The information collected includes demographic data, financial literacy (objective and subjective), self-

control, and financial behavior. Demographic data contains gender, age, marital status, number of children, educational background, and banking applications. A total of 86 respondents participated in the study. Here is the demographic data of this study.

Table 1. Descriptive Statistic of Demography

	Indicator	Mean
Gender	Female	53.50%
	Male	46.50%
Age	<25	7%
	25-30	62.80%
	31-35	11.60%
	>=36-40	18.60%
Marital Status	Married	66.30%
	Single	33.70%
Number of Children	No	43%
	1	15.10%
	2	18.60%
	3	14%
	>3	9.30%
Background	Financial/ economy	46.50%
	Nonfinancial/ Non-economy	53.50%
Banking Application	Yes	72.10%
	No	27.90%

Source: Processed Data (2023)

The questionnaire was prepared after conducting a literature study on objective and subjective financial literacy, self-control, and financial behavior. Independent research variables are objective financial literacy, subjective financial literacy, self-control, and other demographic data. While the dependent variable of this study is financial behavior. Financial behavior is measured using research instruments used by Lind et al., (2020). The measu-

rement was also used by Scheresberg (2013). The study focused on three indicators of short-term and long-term financial behavior: the use of high-cost methods of borrowing, holding precautionary savings, and planning for retirement. Measurement indicators of the use of high-cost borrowing methods are as follows:

Have you taken out an auto title loan?

Have you taken out a short-term "payday" loan?

Have you gotten an advance on your tax refund (This is sometimes called a "refund anticipation loan" or "rapid refund")?

Have you used a pawn shop?

Have you used a rent-to-own store?

The set of possible answers to each of these questions is yes, no, do not know, and refuse to say. An indicator variable is constructed that takes the value of one if the respondent has used one of these methods of borrowing in the five years before the survey, and zero otherwise.

The indicators of precautionary savings measurement are as follows:

Have you set aside emergency or rainy day funds that would cover your expenses for three months in case of sickness, job loss, economic downturn, or other emergencies?

While the indicator of retirement plan measurement is as follows:

Have you ever tried to figure out how much you need to save for retirement?

Respondents provided answers to both questions, with possible answers being yes, no, do not know, and refuse to say. Descriptive statistics of financial behavior are presented in Table 2.

Based on Table 2, the highest percentage of respondents' financial behavior is emergency saving which is 44.06%, followed by high-cost borrowing and retirement plans at 32.17% and 23.78%. That result happens in almost all aspects of the respondent. Financial literacy in this study involved two types of objective and subjective financial literacy. Measurement of objective financial literacy variables using measurements used by Scheresberg (2013). The

Table 2. Descriptive Statistic of Financial Behavior

	High-cost borrowing	Emergency fund	Retirement plan
All	32.17%	44.06%	23.78%
Gender			
Male	34.85%	43.94%	21.21%
Female	29.87%	44.16%	25.97%
Age			
<25	57.14%	28.57%	14.29%
25-30	23.53%	50.59%	25.88%
31-35	38.10%	42.86%	19.05%
>36-40	46.67%	30.00%	23.33%
Marital Status			
Married	33.02%	42.45%	24.53%
Single	29.73%	48.65%	21.62%
Number of Children			
No	29.09%	47.27%	23.64%
1	21.74%	47.83%	30.43%
2	28.57%	46.43%	25.00%
3	45.45%	31.82%	22.73%
>3	46.67%	40.00%	13.33%
Background			
Financial/ Economy	25.71%	47.14%	27.14%
Nonfinancial/ Non-economy	38.36%	41.10%	20.55%
Banking Application			
Yes	31.19%	44.04%	24.77%
No	35.29%	44.12%	20.59%

Source: Processed Data (2023)

following three questions are questions for measuring objective financial literacy (correct answers are indicated with two asterisks):
(1) Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

    More than $102 **
    Exactly $102
    Less than $102
    Do not know
    Refuse to answer

(2) Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

    More than today

Exactly the same
Less than today **
Do not know
Refuse to answer

(3) Please tell me whether this statement is true or false. "Buying a single company's stock usually provides a safer return than a stock mutual fund."

True
False **
Do not know
Refuse to answer

Subjective financial literacy variable measurements also use measurements used by Scheresberg (2013). Subjective financial literacy assessment involves two questions:

How would you assess your overall financial knowledge?

and

How strongly do you agree or disagree with the following statement? "I am pretty good at math."

Both questions are assessed on a scale from 1 to 7. In the first question, 1 indicates very low knowledge and 7 indicates very high knowledge. In the second question, 1 means that the respondent strongly disagrees with the

statement, and 7 means that the respondent strongly agrees with it. The following tables 3 and 4 are descriptive statistics of objective and subjective financial literacy, respectively. Descriptive statistics of objective financial literacy are presented in Table 3.

Based on Table 3, the percentage of respondents' objective financial literacy correct answers was 72.09% related to interest, 59.3% related to inflation, and 23.26% related to risk. The third question is related to risk; almost a quarter of respondents incorrectly answered the possibility because the question points related to investment. Meanwhile, most respondents have never done an investment transaction, so knowledge related to investments (shares) is unfamiliar. If further reviewed, based on the educational background of respondents with a financial or economic education back-ground shows a higher level of objective financial literacy percentage than respondents with non-financial or non-economy educational backgrounds from questions relating to interest, inflation, or risk. Descriptive statistics of subjective financial literacy are presented in Table 4.

Table 3. Descriptive Statistic of Objective Financial Literacy

	Interest		Inflation		Risk	
	True	Don't Know/ Wrong	True	Don't Know/ Wrong	True	Don't Know/ Wrong
All	72.09%	27.91%	59.30%	40.70%	23.26%	76.74%
Gender						
Male	65.00%	35.00%	55.00%	45.00%	15.00%	85.00%
Female	78.26%	21.74%	63.04%	36.96%	30.43%	69.57%
Age						
<25	33.33%	66.67%	33.33%	66.67%	16.67%	83.33%
25-30	79.63%	20.37%	62.96%	37.04%	27.78%	72.22%
31-35	60.00%	40.00%	60.00%	40.00%	20.00%	80.00%
>36-40	68.75%	31.25%	56.25%	43.75%	12.50%	87.50%

	Interest		Inflation		Risk	
	True	Don't Know/ Wrong	True	Don't Know/ Wrong	True	Don't Know/ Wrong
Marital Status						
Married	75.44%	24.56%	56.14%	43.86%	15.79%	84.21%
Single	65.52%	34.48%	65.52%	34.48%	37.93%	62.07%
Number of Children						
No	75.68%	24.32%	75.68%	24.32%	43.24%	56.76%
1	69.23%	30.77%	38.46%	61.54%	7.69%	92.31%
2	68.75%	31.25%	50.00%	50.00%	12.50%	87.50%
3	91.67%	8.33%	50.00%	50.00%	0.00%	100.00%
>3	37.50%	62.50%	50.00%	50.00%	12.50%	87.50%
Background						
Financial/ Economy	77.50%	22.50%	67.50%	32.50%	42.50%	57.50%
Nonfinancial/ Non-economy	67.39%	32.61%	52.17%	47.83%	6.52%	93.48%
Banking Application						
Yes	74.19%	25.81%	58.06%	41.94%	72.58%	27.42%
No	38.10%	61.90%	35.71%	64.29%	7.14%	92.86%

Source: Processed Data (2023)

Table 4. Descriptive Statistic of Subjective Financial Literacy

	Self-assessment financial knowledge	How much do you agree with the following sentence? " I am good at math"
All	4.43	4.00
Gender		
Male	4.28	3.98
Female	4.57	4.02
Age		
<25	4.67	3.67
25-30	4.54	4.17
31-35	4.60	4.10
>36-40	3.88	3.50
Marital Status		
Married	4.30	3.98
Single	4.69	4.03

	Self-assessment financial knowledge	How much do you agree with the following sentence? " I am good at math"
Number of Children		
No	4.89	4.30
1	4.92	4.38
2	4.13	4.13
3	3.67	3.25
>3	3.25	2.88
Background		
Financial/ Economy	4.78	4.20
Nonfinancial/ Non-economy	4.13	3.83
Banking Application		
Yes	4.39	3.97
No	4.54	4.08

Source: Processed Data (2023)

Based on table 4, respondents' average subjective financial literacy was 4.43 related to financial knowledge, and 4.40 related to mathematical ability. If further reviewed, based on the educational background of respondents with a financial or economic education background shows a higher average level of subjective financial literacy than respondents with non-financial or non-economy educational backgrounds both from financial knowledge and mathematical skills. Furthermore, the measure of self-control in this study was adopted from Gathergood & Weber (2014).

(1) I am impulsive and tend to buy things even when I can't afford them.
 a. Agree Strongly
 b. Agree
 c. Disagree
 d. Disagree Strongly

(2) I am prepared to spend now and let the future take care of itself.
 a. Agree Strongly
 b. Agree
 c. Disagree
 d. Disagree Strongly

(3) How likely or unlikely do you think it is that you will be made redundant or become unemployed over the next 6 months?
 a. Very Likely
 b. Likely
 c. Unlikely
 d. Very unlikely

(4) Shortly, Soon how likely or unlikely is it that you will need to borrow any more money over the next 3 months?
 a. Very Likely
 b. Likely
 c. Unlikely
 d. Very unlikely

Descriptive statistics of self-control are presented in Table 5.

Based on Table 5, the average self-control of respondents was 11.01. If reviewed further, based on the educational background of respondents with a financial or economic education background shows a higher level of average self-control than respondents with a non-financial or non-economy educational background.

This study uses three indicators of financial behavior, including high-cost borrowing, emergency funds, and retirement plans. Financial behavior – high-cost borrowing of young adults has been construed as "have" and

Table 5. Descriptive Statistic of Self-control

	Indicator	Mean
All		11.01
Gender	Female	11.43
	Male	10.52
Age	<25	11.00
	25-30	11.26
	31-35	10.20
	>=36-40	10.69
Marital status	Married	10.68
	Single	10.65
Number of children	No	11.62
	1	11.23
	2	10.75
	3	10.17
	>3	9.62
Background	Financial/ economy	11.15
	Nonfinancial/ Non-economy	10.89
Banking application	Yes	10.77
	No	11.62

Source: Processed Data (2023)

"have not". Young adults have taken high-cost borrowing is depicted when young adults used payday loans, pawnshops, auto title loans, refund anticipation loans, or rent-to-own shops in the five years before the study. Financial behavior – emergency funds of young adults have been construed as "have" and "have not". Young adults have set aside emergency funds are depicted when young adult sets aside emergency or rainy-day funds that would cover their expenses for three months in case of sickness, job loss, economic downturn, or other emergencies. Financial behavior – the retirement plan of the young adult has been construed as "have" and "have not". Young adults' retirement plan is depicted when they ever tried to figure out how much they need to save for retirement.

To determine whether have/have not financial behavior (high-cost borrowing, emergency fund, retirement plan) depends upon financial literacy, self-control, and other variables. Binary logistic regression has been applied. The logistic regression model has been preferred over ordinary least squares to compute estimates due to a binary de-pendent variable. The model is defined as:

Where,

L_i = dependent variable

X_i = predictor or independent variable

P_i = probability of occurrence of an event; and

$1-P_i$ = probability of non-occurrence of an event; and

The dependent variable (financial behavior) was measured using three indicators: high-cost borrowing, emergency fund, and retirement plan. It was re-coded as a binary variable. That was done to classify young adults into two categories – young adults who have financial behavior and young adults who do not. Thirteen young adults were identified as having taken high-cost borrowing. Whereas 73 young adults show that they have not taken high-cost borrowing. Sixty-three young adults were identified as having set aside emergency funds. Whereas 23 young adults show that they have not set aside emergency funds. Fifty-two young adults were identified as having ever tried to figure out how much they needed to save for retirement. Whereas 34 young adults show, they have not ever tried to figure out how much they need to save for retirement. Independent samples t-test was applied to identify whether a significant difference exists between the two sets of respondents concerning young adults' financial behavior. Independent samples t-test results showed that the two sets of respondents differed significantly (Table 6).

Table 6. Results of Independent Samples T-Test for Young Adult's Financial Behavior

Financial behavior – high-cost borrowing		
Variables	Frequency	Significance
Young adults have taken high-cost borrowing	13	0.000
Young adults have not taken high-cost borrowing	73	
Financial behavior – emergency fund		
Variables	Frequency	Significance
Young adults have set aside emergency fund	63	0.000
Young adults have not set aside emergency fund	23	
Financial behavior – retirement plan		
Variables	Frequency	Significance
Young adults have ever tried to figure out how much they need to save for retirement	52	0.054
Young adults have not ever tried to figure out how much they need to save for retirement	34	

Source: Processed Data (2023)

RESULT AND DISCUSSION

The independent variables for the study (shown in Table 7) include gender, marital status, number of children, income, background, banking application, objective financial literacy, mathematical ability, financial knowledge, and self-control. As seen from Table 8, the logit regression coefficients of the variables influencing young adults' financial behavior indicate that the number of children, mathematical ability, and financial knowledge is significant factors influencing young adults' financial behavior related to high-cost borrowing. The model can be written as:

$$L_1 = -27\text{-}407 - 2.44X_1 - 0.447X_2 - 3.335X_3 - 0.37X_4 + 3.27X_5 + 3.898X_6 + 23.305X_7 - 6.071X_8 - 5.807X_9 + 1.439X_{10}$$

Table 7. Dependent and Independent Variables of the Model

Variables	Label
Financial behavior – high-cost borrowing	L_1
Financial behavior – an emergency fund	L_2
Financial behavior – retirement plan	L_3
Gender	X_1
Marital Status	X_2
Number of Children	X_3
Income	X_4
Background	X_5
Banking Application	X_6
Objective Financial Literacy	X_7
Mathematical Ability	X_8
Financial Knowledge	X_9
Self Control	X_{10}

Source: Processed Data (2023)

Table 8. Logit Regression Coefficients of the Variables Influencing Young Adult's Financial Behavior – High-Cost Borrowing

Predictor	X_i	Coefficient (B)	Significance	Exp(B)
Constant		-27.407	0.995	0
Gender	X_1	-2.445	0.343	0.087
Marital Status	X_2	-0.477	0.711	0.621
Number of Children	X_3	-3.335	0.034**	0.036
Income	X_4	-0.37	0.384	0.691
Background	X_5	3.27	0.253	26.324
Banking Application	X_6	3.898	0.132	49.285
Objective Financial Literacy	X_7	23.305	0.996	13222935619
Math Ability	X_8	6.071	0.083***	433.259
Financial Knowledge	X_9	-5.807	0.074***	0.003
Self Control	X_{10}	1.439	0.238	4.218

Notes: 2 Log-likelihood 22.225; Cox and Snell R^2 0.446; Nagelkerke R^2 0.780; Hosmer and Lemeshow test 0.431; p 1.000; Exp (B) refers to odds ratio; * significant at 1%; ** significant at 5%; *** significant at 10%
Source: Processed Data (2023)

Table 9. Classification Results of Financial Behavior – High-Cost Borrowing

Observed	Predicted young adult's financial behavior – high-cost borrowing		Total
	Have not	Have	
Have not	70 (95.9)	30 (4.1)	73 (100.0)
Have	1 (7.7)	12 (92.3)	13 (100.0)

Notes: Bold figures represent percentages; the overall correct classification rate of the model is 95.3%
Source: Processed Data (2023)

As seen from Table 10, the logit regression coefficients of the variables influencing young adults' financial behavior indicate that objective financial behavior and self-control are the significant factors influencing young adults' financial behavior related to the emergency fund. The model can be written as:

$$L2 = 0.012 - 0.632X1 - 1.481X2 + 0.01X3 - 0.12X4 - 1.034X5 + 0.755X6 - 1.133x7 + 0.681X8 + 0.151X9 + 1.241X10$$

Table 10. Logit Regression Coefficients of The Variables Influencing Young Adult's Financial Bahaviour– An Emergency Fund

Predictor	X_i	Coefficient (B)	Significance	Exp(B)
Constant		0.012	0.993	1.012
Gender	X_1	-0.632	0.335	0.531
Marital Status	X_2	-1.481	0.063***	0.227
Number of Children	X_3	0.01	0.978	1.01
Income	X_4	-0.12	0.515	0.887
Background	X_5	1.034	0.117	2.811
Banking Application	X_6	0.755	0.255	2.128
Objective Financial Literacy	X_7	1.133	0.07***	3.106
Math Ability	X_8	0.681	0.355	1.976
Financial Knowledge	X_9	0.151	0.848	1.163
Self Control	X_{10}	1.241	0.071***	3.46

Notes: 2 Log-likelihood 79.337; Cox and Snell R^2 0.212; Nagelkerke R^2 0.309; Hosmer and Lemeshow test 8.2025; p 0.414; Exp (B) refers to odds ratio; * significant at 1%; ** significant at 5%; *** significant at 10%

Source: Processed Data (2023)

Table 11. Classification Results of Financial Behavior – An Emergency Fund

Observed	Predicted young adult's financial behavior – an emergency fund		Total
	Have not	Have	
Have not	8 (34.8)	15 (65.2)	22 (100.0)
Have	3 (4.8)	60 (95.2)	63 (100.0)

Notes: Bold figures represent percentages; the overall correct classification rate of the model is 79.1%

Source: Processed Data (2023)

As seen from Table 12, the logit regression coefficients of the variables influencing young adults' financial behavior indicate that objective financial behavior is the significant factor influencing the retirement plan's financial behavior. The model can be written as:

$$L3 = -2.555 + 0.143X1 - 0.992X2 + 0.129X3 + 0.042X4 + 0.588X5 + 0.831X6 + 1.331X7 + 1.031X8 - 0.588X9 + 0.263X10$$

Table 12. Logit Regression Coefficients of the Variables Influencing Young Adult's Financial Behavior – Retirement Plan

Predictor	X_i	Coefficient (B)	Significance	Exp(B)
Constant		-2.555	0.053	0.078
Gender	X_1	0.143	0.807	1.153
Marital Status	X_2	-0.992	0.142	0.371
Number of Children	X_3	0.129	0.653	1.138
Income	X_4	0.042	0.803	1.043
Background	X_5	0.588	0.308	1.801
Banking Application	X_6	0.831	0.19	2.296
Objective Financial Literacy	X_7	1.331	0.018**	3.785
Math Ability	X_8	1.031	0.135	2.804
Financial Knowledge	X_9	-0.588	0.393	0.556
Self Control	X_{10}	0.263	0.633	1.301

Notes: 2 Log-likelihood 98.580; Cox and Snell R^2 0.178; Nagelkerke R^2 0.241; Hosmer and Lemeshow test 6.087; p 0.637; Exp (B) refers to odds ratio; * significant at 1%; ** significant at 5%; *** significant at 10%

Source: Processed Data (2023)

Table 13. Classification Results of Financial Behavior – Retirement Plan

Observed	Predicted young adult's financial behavior – retirement plan		Total
	Have not	Have	
Have not	43 (82.7)	9 (17.3)	52 (100.0)
Have	16 (47.1)	18 (52.9)	34 (100.0)

Notes: Bold figures represent percentages; the overall correct classification rate of the model is 70.9%

Source: Processed Data (2023)

Based on the data analysis conducted using logistic regression, objective financial literacy in-fluences financial behavior in saving emergency funds and retirement plans. The results of this study are consistent with previous research (Al-menberg & Säve-Söderbergh, 2011; Babiarz & Robb, 2014; Kalmi & Ruuskanen, 2019; Lee, 2019; Lusardi & Mitchell, 2017). However, financial literacy does not affect financial behavior on high-cost borrowing behavior. A person with high financial literacy has more knowledge about financial products than a person with low financial literacy. Having emergency savings and planning a pension program is important for someone with high productivity. A person of productive age is more concerned with emergency savings because they tend to face more unexpected expenses. In addition, a person who works at a productive age is also more aware of the importance of planning a pension because it can support future well-being. However, financial

literacy does not affect financial behavior on high-cost loans. That is maybe because borrowing behavior is not affected by one's financial literacy but because of the encouragement of needs.

Subjective financial literacy in mathematical skills and financial knowledge only affects financial behavior related to high-cost borrowing. The results of this study are consistent with the findings of Lusardi & Scheresberg (2013) and Pak (2018). Interestingly, the influence of both types of subjective financial literacy in different directions of influence. Mathematical ability positively affects financial behavior related to high-cost borrowing, while financial knowledge negatively influences financial behavior related to high-cost borrowing. Someone with high mathematical ability is more likely to take out a high-cost borrowing. These results distorted the results of previous studies that showed that subjective financial literacy negatively influenced high-cost borrowing. That is likely because respondents are classified as young adults who are more willing to take risks—a person with high mathematical ability with more emphasis only on the aspect of calculating without considering risk factors.

In contrast, someone who has high financial knowledge, not only on calculating but also on the consideration of risk factors in making financial decisions. A person with subjective financial literacy concerning high mathematical ability tends to be less reluctant to avoid financial information that boils down to financial behavior (Barrafrem et al., 2020). Beliefs about the extent to which a per-son's financial knowledge (mathematics) is as important (or even exceeding) as his actual knowledge relates to financial knowledge. Such belief bias encourages a person to be bolder to take financial behavior.

The results of logistics regression analysis related to the influence of self-control on financial behavior show that self-control only affects financial behavior related to the behavior of saving emergency funds. This result is consistent with the findings of Strömbäck et al. (2017). People with good self-control are more likely to save money from every paycheck, have better general financial behavior, feel less anxious about financial matters, and feel more secure in their current and future financial situation. However, the results show that self-control does not affect high-cost borrowing and retirement plans. That is because a person who has high control over his finances can control his desires. Generally, desire is more likely to be on expenditures that are not a priority. Therefore, a person with high control tends to allocate more funds for savings and think of more urgent expenses in the future.

Further results indicate that the number of children affects financial behavior related to high-cost borrowing. Someone with more children is less likely ever to take out a high-cost borrowing. That is due to the consideration of the risks that will be faced when unable to pay off. A person with more children tends to have a high cost of living needs, so many considerations are made when taking out a loan.

This research has implications that financial literacy becomes an important aspect of increasing one's awareness of the importance of good financial behavior. A person with a group of young adults needs to improve financial literacy both objectively and subjectively. That is because they are more often faced with various financial products. In addition, a young adult needs to have high self-control. Better self-control will encourage one to be wiser in managing finances.

Moreover, the existence of financial technology makes it easier for someone to transact financially to provide flexibility for someone to use financial products more widely. That requires discretion in making willful decisions. A person with high self-control tends to allocate more funds for priority purposes and is more aware of the importance of allocating emergency fund savings. Banks and non-bank institutions can also contribute insights from this research. Both banks and non-bank institutions can map the segments

of financial prod-ucts they offer. In addition, it utilizes financial technology to encourage the use of services in banks and non-bank institutions. In addition, policymakers can guide the positive impact of finan-cial literacy and self-control on financial behavior. Policymakers can devise strategies to increase financial inclusion.

CONCLUSION

This study reveals that young adults' finan-cial behavior significantly depends upon objective financial literacy, subjective financial literacy, self-control, and demographic variables, such as the number of children. Financial behavior related to high-cost borrowing relies on subjective financial literacy (mathematical ability and financial knowledge). The influence of subjective financial literacy on mathematical ability and financial knowledge has a distinct influence on financial behavior related to high-cost borrowing. Financial behavior relating to emergency savings and pension plans relies on objective financial literacy. Someone with a good financial understanding is more conservative and thinks about the uncertain-ty of the future. In addition, financial behavior related to emergency fund savings also depends on one's self-control. Someone with a high level of financial control tends to emphasize the needs of priority and be aware of the importance of emer-gency funds for expenditures of an urgent nature (illness, econo-mic downturn, job loss, etc.).

There are some limitations to this stu-dy. First, this study is limited to respondents of productive age, so the study results can't be generalized. Second, The sample size of this study is tiny. Third, this study was conducted using surveys to enable bias. Further research can be done using a larger sam-ple size, using a qualitative research approach. In addition, further research can be done by develop-ing a model of financial behavior that involves se-veral driving factors from within a person (internal motivation) and from outside (external mo-tivation).

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